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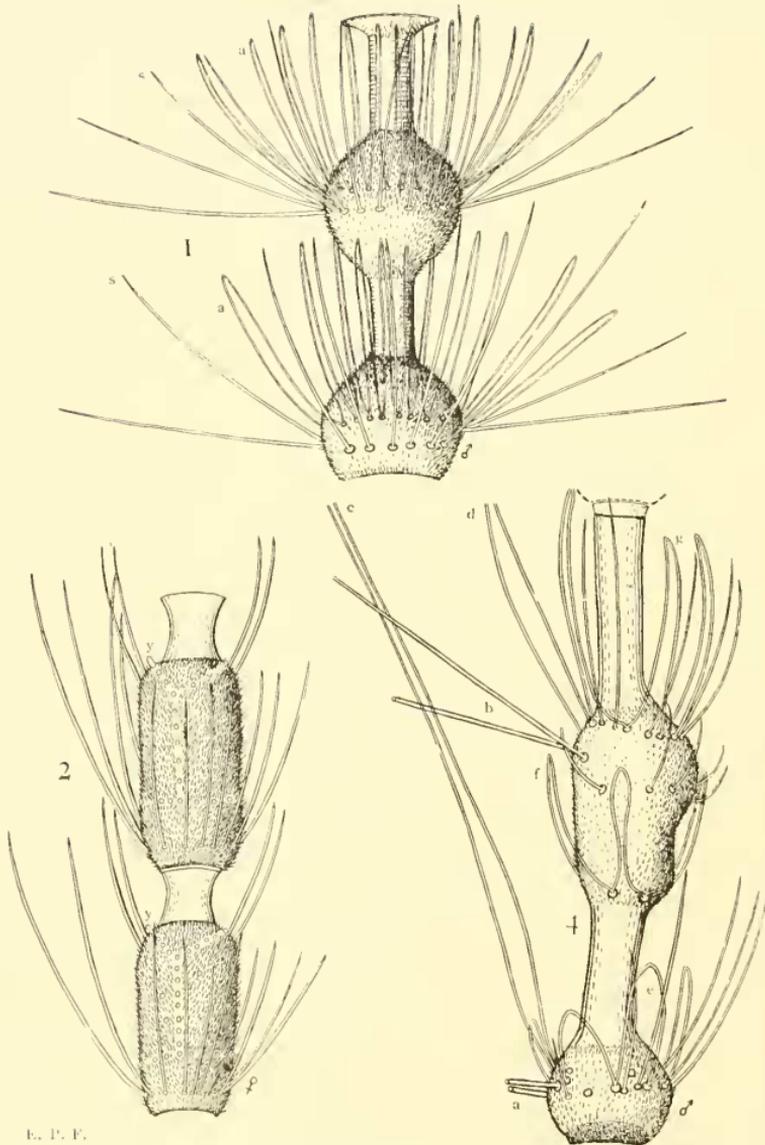
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E. P. F.

FELT.— ANTENNAL STRUCTURE OF DIPLOSIDS.

(Reproduced from the Eleventh Report of the N. Y. State Entomologist).

PSYCHE.

ANTENNAL STRUCTURE OF CERTAIN DIPLOSIDS.

BY E. PORTER FELT, ALBANY, NEW YORK.

The antenna of the male *Diplosis* is commonly said to possess twice the number of segments as does that of the female, excluding the two basal segments in each sex. At least such has been the accepted number until within a few years. According to Kieffler,* we owe the discovery that these segments in the male are compound and composed of two enlargements to Laboulbène, this, of course, doing away with the disparity in number of antennal segments between the sexes. In this same paper Kieffler describes some novel structures found upon the antennae of the male, which he terms *filets arqués* and which perhaps may be translated as *arched filaments*.

The arched filaments differ widely from ordinary setae, though they occur in whorls in the same manner. They arise from pits in the chitine in much the same way as do the setae, but, instead of remaining single and tapering to a point, they divide near the base into two equal branches which diverge to the middle of their length where they recurve, sharply as a rule, and turn to unite with the base of the adjoining filaments in the whorl (Fig.

1). Thus by means of the anastomosises these arched filaments, which from their designation one would expect to be free from each other, are in reality continuous and form a looped thread around the segment with anchoring branches at regular intervals. This structure is well brought out in a preparation of the male antennae of *Diplosis pyrivora* Riley. In this instance a number of the arched filaments accidentally became loosened from their attachments, but the anastomosises, where each arch is joined to the base of the next, remained unbroken and distinct. In this preparation the components of some of the arches may be seen diverging at very various angles—another strong fact in favor of their being no connecting membrane. The whorls of arched filaments occur on both enlargements of the antennal segments; in some species one on the basal and two on the medial enlargement. The ordinary setae occur in whorls in close proximity to the arched filaments, though usually nearer the base of the segment, unless there be two sets of filaments on one enlargement. The arched filaments have a uniform diameter throughout their course, though the anchoring branches are a little stouter; but there is no

* Bull. séances Soc. entomol. Fr., 1895, p. CXCII.